

## ABSTRACT

The reader or transmitter and/or receiver (22) includes a sheathed antenna formed of two groups of turns or coils (6, 8, 9; 16, 17). The first group of turns or coils forms a sheathed antenna. The second group includes two coils (16, 17) arranged between the central coil (6) and respectively the two end coils (8, 9) of the first group.

- 5 The second group of coils is powered in phase quadrature relative to the first group of coils, the set of coils being arranged so as to obtain a magnetic field (H) whose amplitude (A) is approximately constant along the central axis (24) of the antenna inside the overall inner volume of the latter.